



PUBLIC NOTICE

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FCC RELEASES STUDY OF EXPOSURE TO RADIOFREQUENCY

FIELDS ON AM BROADCAST TOWERS

The Commission has released a study entitled, "Induced Body Currents and Hot AM Tower Climbing: Assessing Human Exposure in Relation to the ANSI Radiofrequency Protection Guide" (FCC Reference Number: FCC/OET RTA 91-01). This study was performed for the FCC's Office of Engineering and Technology by Richard Tell Associates, Inc. The purpose of the study was to investigate exposure to radiofrequency (RF) fields experienced by individuals who must climb transmitting AM broadcast towers to perform maintenance tasks such as changing tower light bulbs or painting. Data on such exposures should help the FCC advise broadcasters of transmitting power levels that would allow maintenance tasks to be performed while still preventing exposure of tower climbers in excess of recommended RF protection guidelines.

Research has indicated that significant absorption of RF energy can result from currents induced in the body by RF fields. This is particularly true at frequencies used for AM broadcast transmissions. In this study measurements were made of currents induced in the body of an individual climbing each of two 1 kilowatt AM broadcast towers, with electrical heights of 0.23 and 0.53, respectively. A theoretical analysis of the electric fields near the towers showed that the induced currents were correlated with the radial component of the electric field. This result is consistent with an earlier study performed by the FCC and the Environmental Protection Agency, and it should allow the prediction of exposure due to induced currents for other towers by analyzing the electric fields near the towers.

Paper and microfiche copies of the study are available for purchase through the National Technical Information Service (NTIS), (703) 487-4650 or (800) 553-NTIS (rush orders only). The NTIS accession number for this report is: PB 92-125186. Copies can also be purchased from the FCC's contractor for public records duplication, the Downtown Copy Center, (202) 452-1422. For specific information concerning the study contact Robert Cleveland, (202) 653-8169.

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